ABSTRACT

BACKGROUND

Insulin resistance represents an insensitivity of peripheral tissues to the effect of insulin. Insulin resistance is strongly predictive of the development of type 2 Diabetes. Obese individuals with insulin resistance have shown increased prevalence of abnormalities of glucose metabolism. Given that insulin resistance represents an important risk factor for development of type 2 Diabetes. Identification of adults with insulin resistance has been proposed as a strategy for identifying high risk adult for targeted diabetes prevention intervention.

AIMS AND OBJECTIVES

1.To study the prevalence of insulin resistance among non-diabetic obese individuals.

2. To study the factors determining the insulin resistance among non-diabetic obese individuals.

METHODS

Obese individuals between the age group 20 years and 50 years, who attend medical OPD for minor ailments are included in the study. All participants are explained about the study and informed consent is obtained. Individuals who meet the inclusion criteria are subjected to detailed history, physical examination, bio chemical and radiological investigations as per the well-designed proforma. Statistical analysis was done using SPSS 16 software. The difference between various parameters was considered statistically significant when the p value < 0.05

RESULTS

120 obese individually who attended the medical out-patient department for minor ailments were included in the study. The prevalence of insulin resistance among non-diabetic obese individuals is 68.3%. In the insulin resistant group, males outnumbered the female population and the male to female ratio is 1.3:1. Individuals in the Insulin Resistant group have significantly high age when compared with the Non-Insulin Resistant group. The insulin resistance in smoker is significantly more than the non-smokers. Of the 120 obese individuals, Acanthosis Nigricans was present in about 73 individuals. There is an increase in insulin resistance with an increase in the class of Acanthosis Nigricans. Skin tags are present in about 72 individuals. On comparison of the various lipids between the insulin resistant and non-resistant group, it is found that the total cholesterol and triglycerides shows significant variation. But there is no significant difference in LDL and HDL values between the two groups. The TSH values and Uric acid values of the insulin resistant and non-insulin resistant group are compared and showed a significant increase in insulin resistant group.

CONCLUSION

There is an increased prevalence of insulin resistance among non-diabetic obese individuals. Increase in age, male sex, smoking, family history of Diabetes, physical markers like Acanthosis Nigricans and skin tags showed significant difference between the insulin resistant and non-insulin resistant groups.

KEY WORDS:

Insulin resistance, Acanthosis Nigricans, Skin Tags